Appl. No. 09/835,007 Response Dated 06/15/2005 Reply to Office communication of 05/16/ 2005

## **ABSTRACT**

A method and system are provided for constructing a virtual three-dimensional model of an object using a data processing system, and at least one machine-readable memory accessible to the data processing system. A set of at least two digital three-dimensional frames of portions of the object are obtained from a scanner or other source comprising a set of point coordinates in a three dimensional coordinate system providing differing information of the surface of the object. The frames provide a substantial overlap of the represented portions of the surface of the object, but do not coincide exactly. Data representing the set of frames are stored in the memory and processed by the data processing system so as to register the frames relative to each other to thereby produce a three-dimensional virtual representation of the portion of the surface of the object covered by the set of frames.

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